



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Sacramento Fish and Wildlife Office
2800 Cottage Way, Room W-2605
Sacramento, California 95825-1846



In Reply Refer To:

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Director Hydro Licensing, Power Generation
Pacific Gas and Electric Company
P.O. Box 770000
San Francisco, California 94177

Chief, Division of Environmental Generation
Department of Water Resources
P.O. Box 942836
Sacramento, California 94236

Subject: Comments on November 2009 Draft Habitat Expansion Plan for the Habitat Expansion Agreement for Central Valley Spring-Run Chinook Salmon and California Central Valley Steelhead

Dear Licensees:

Thank you for the opportunity to comment on the November 2009 *Draft Habitat Expansion Plan* (DHEP) for the *Habitat Expansion Agreement for Central Valley Spring-Run Chinook Salmon and California Central Valley Steelhead* (HEA). The U. S. Fish and Wildlife (Service) appreciates the work of the Licensees in identifying projects that may be of benefit to salmonids.

As described in the HEA, through this draft plan and consultation with Parties and with directly affected and responsive third parties, the Licensees are to complete identification, evaluation and recommendation of habitat expansion actions, in accordance with evaluation and selection criteria set out in the HEA (Section 4.1 of the HEA). The ultimate goal of the HEA, and thus of the eventual Habitat Expansion Plan, is to expand the amount of habitat with physical characteristics necessary to support spawning, rearing and adult holding of spring-run Chinook salmon (spring-run Chinook) and Central Valley steelhead in the Sacramento River Basin as a contribution to the conservation and recovery of these species (Section 2.1 of HEA). Ultimately, the specific goal of the HEA is to expand spawning, rearing and adult holding habitat sufficiently to accommodate an estimated net increase of 2,000 to 3,000 spring-run Chinook for spawning (Section 2.2 of HEA). The Service has reviewed the DHEP with these considerations in view.

The Service's primary concern with the DHEP is that, as presently constituted, it does not present recommendations that will achieve the goals set out in the HEA. Although we are on record for supporting many of the individual projects identified in the DHEP, we continue to have



concerns regarding the approach used to select the recommended alternatives in the DHEP and in the accounting used to estimate Habitat Expansion Threshold (HET) contributions.

The DHEP identifies two sets of recommended actions to meet the goals, terms and conditions of the HEA: (1) the Lower Yuba River habitat expansion actions (Lower Yuba River actions) and (2) the Battle Creek, Big Chico Creek, and Antelope Creek habitat expansion actions (Three-Creek actions). After careful review of the DHEP, the Service believes that neither of these recommended actions, if implemented as described in the DHEP, are likely to achieve the HEA goal of expanding the amount of spawning, rearing and adult holding habitat for spring-run Chinook and steelhead in the Sacramento River Basin. Nor would the actions establish an independent run of spring-run Chinook or support the spring-run Chinook numbers identified for each set of actions.

General comments. In our July 15, 2009, comment letter, we expressed concern that habitat expansion projects appeared to be disproportionately linked with the designation of “deal killer” in the June 10, 2009, *Habitat Expansion Agreement: Working Definitions of Evaluation, Selection, and Approval Criteria* (Working Definitions). We were also concerned that habitat expansion projects disproportionately fell out of the timing window of the Working Definitions and were designated as having a long “time to implement.” We are concerned that the Licensees have prematurely eliminated habitat expansion projects from consideration, due to an inaccurate perception that such projects will take longer to implement than habitat enhancement projects. We continue to believe that some projects, such as those involving fish passage above rim dams, were eliminated from consideration too early in the development of the DHEP and deserve a more detailed examination of their benefits and limiting factors. We urge the Licensees to more thoroughly consider habitat expansion projects, such as fish passage on the Yuba River, in order to meet the spirit and intent of the HEA.

The Service supports both restoring spawning habitat targeting spring-run Chinook salmon in the Englebright Dam reach and restoring juvenile rearing habitat in the lower Yuba River. However, the likelihood that these actions will lead to a geographically separate, self-sustaining population of spring-run Chinook salmon is uncertain in part because of the lack of clear temporal and spatial separation between spring- and fall-run Chinook salmon. Hence, these actions do not appear to meet the National Marine Fisheries Service’s (NMFS) approval criteria for the Habitat Expansion Plan as described in section 4.2.3 of the HEA.

Lower Yuba River Actions. The Lower Yuba River actions are comprised of riverbed work between Englebright and Daguerre Point Dams, an optional segregation weir, and restoration of juvenile rearing habitat between Highway 20 Bridge and the downstream extent of the Yuba Goldfields. These three actions all have merits, but their combined contribution to spring-run Chinook numbers appears to be overstated in the DHEP.

The primary example of overstated benefits is the riverbed work between Englebright and Daguerre Point Dams. Daguerre Point Dam is a known impediment to spring-run Chinook and steelhead, causing significant delays in migration, and perhaps increased overlap in spawning with fall-run Chinook salmon. Increasing spawning habitat is an important consideration in conserving all Chinook salmon; however, increasing spawning habitat without a commensurate increase in fish passage may not be expected to attain the numbers put forward in the DHEP.

If additional adult spring-run Chinook are not able to access the habitat, then the enhanced habitat should not be considered expansion under the HEA. The HEA was careful not to burden the Licensees with responsibility for fluctuating salmonid populations; however, the proposed changes in the physical characteristics of the river should not be considered as adequate mitigation for blockage of fish passage, if blockage of fish passage continues to be an overriding consideration in habitat availability.

In addition, the Army Corps of Engineers (ACOE) has an existing regulatory requirement for long-term gravel augmentation in this reach. The increases in spawning habitat expected to occur as a result of ACOE actions appear to be counted toward the HET. A very clear accounting must be done to assure that there is no overlap between obligations of the ACOE and incremental contributions of the DHEP actions.

Three-Creek Actions. Actions identified in other venues are acceptable under the HEA, provided that their implementation results in a net expansion of habitat over any Existing Requirements and Commitments. It appears that the Licensees are counting habitat contributions made by other parties in the Three-Creek action area toward the estimated contribution of the DHEP actions to the HET. This is not consistent with Section 3.1 of the HEA. The Service bases this conclusion on the fact that the entire Battle Creek restoration, including both Phase 1 and Phase 2, is estimated to support approximately 2,500 spring-run Chinook (U.S. Bureau of Reclamation *et al.* 2004), but the DHEP contribution to Battle Creek Restoration will be toward Phase 2 only, and the maximum contribution from the HEA will be \$16.9 million (36 percent of the Phase 2 total).

The DHEP overstates the potential habitat expansion of the Three-Creek Actions. By our calculations, the Three-Creek Actions would support an additional 1,042 adult spring-run Chinook¹, rather than the 2,250 identified in the DHEP. The discrepancy in the numbers may be irrelevant in the final discussion, because it appears that parts of the Three-Creek actions overlap with regulatory requirements placed upon other agencies.

It also appears that Existing Requirements and Commitments from the NMFS' final OCAP biological opinion on long-term operations of the Central Valley Project and State Water Project (NMFS 2009) are being combined with mitigation needs under the HEA. Specifically, the Battle Creek Habitat Expansion Actions proposed in the DHEP are part of the reasonable and prudent alternative of NMFS' final OCAP biological opinion. These actions fall under the Existing Requirements and Commitments restriction in section 3.1 of the HEA.

Section 6.2.3 (Limiting Factors). Two of the limiting factors identified in this section (*i.e.*, lack of temporal or spatial segregation of spawning spring-run and fall-run fish, and straying of hatchery fish) are potentially serious enough to render the contribution of the Lower Yuba River actions to the HET for spring-run Chinook salmon as smaller than estimated, or as not

¹ The Battle Creek Phase 2 funding contribution would contribute to habitat for an additional 387 adult spring-run Chinook. The Antelope Creek Habitat Expansion Action at Paynes Crossing would support an additional 224 adult spring-run Chinook. The Big Chico Creek Habitat Expansion Action at Iron Canyon would support an additional 431 spring-run Chinook.

measureable. These limiting factors deserve further discussion, and, in particular, justification explaining why the Lower Yuba River actions should proceed in the face of these limiting factors.

Section 6.4 (Spawning Habitat Rehabilitation). Both the Sinoro Bar Shotrock Removal project and Deer Creek Gravel Augmentation project will require the cooperation of landowners and continual post-project maintenance by other parties (as was noted). Although these are not limiting factors *per se*, the feasibility of implementing these projects hinges greatly on reaching appropriate agreements with complex entities. Multiple landowners will be impacted by project access, including the ACOE, for which budget constraints and priorities may impact the schedule of meeting the statutory requirements of the NMFS biological opinion on the operation of Daguerre Point Dam and Englebright Dam (Section 6.4.6). The DHEP should map out a more detailed strategy to provide some assurance that these agreements can be attained.


Section 6.6 (Juvenile Rearing Habitat Restoration). In addition to a pilot restoration project, the Service's Anadromous Fish Restoration Program (AFRP) has funded a pre-project assessment that is addressing geomorphic, hydrologic, hydraulic and riparian conditions at different sites. The results of this study are expected to be available in April 2010 (Gary Reedy, SYRCL, personal communication). Recent preliminary results have indicated (1) the Yuba River is so dynamic that single-event substrate restoration actions should not be viewed as permanent (and certainly not maintenance-free), and (2) there are some places with appropriate soil conditions and summer water levels where riparian plantings of cottonwoods would be valuable and have a high likelihood of success. These are scientifically valid points and they differ from what is presented in this section of the DHEP.

It would be optimal to have restoration actions last 10 to 15 years, at the very minimum. The Service is concerned that the Lower Yuba River actions may be short-lived (even returning to baseline within a year of implementation), if not maintained properly. Hopefully, juvenile habitat restoration will have some lasting value with maintenance, through contribution to instream woody material and new establishment of cottonwoods over the long term. A cost/benefit analysis is the key to determining whether it is acceptable to fund restoration projects that may have limited longevity. The issue of action longevity should be discussed in this section.

Conclusion. Although substantial progress has been made in preparing a foundation for decision-making, the Service finds the decision-making process of the DHEP to need further work. As outlined above, the DHEP is not consistent with the HEA, because it is not likely to contribute to a new population of spring-run Chinook, overestimates contribution to the HET, appears to overlap with the regulatory requirements and obligations of other parties, and does not give adequate consideration to in-kind mitigation. We recommend that increased fish passage on the Yuba River be re-examined and that a clear and thorough accounting of potential HET contributions be done on any recommended actions that are shared with other parties. We also recommend that the decision-making process be modified to address the concerns enumerated in this letter.

If you have any questions regarding our comments, please contact Alison Willy at (916)414-6534. We look forward to continued involvement in this important process.

Sincerely,


for M. Kathleen Wood
Assistant Field Supervisor

Attachment

cc:

FERC Washington, DC
Liv Imset, HEA Steering Committee
Heidi Rooks, HEA Steering Committee
Paul Kubicek, HEA Steering Committee
Chris Wilkinson, HEA Steering Committee
Brenda Olson, Red Bluff Fish and Wildlife Office
Tricia Parker, Red Bluff Fish and Wildlife Office
Elizabeth Campbell, Stockton Fish and Wildlife Office
Ramon Martin, Stockton Fish and Wildlife Office
Mary Lisa Lynch, DFG
Tracy McReynolds, DFG
Larry Thompson, NOAA
Richard Wantuck, NOAA
Teresa Connor, DWR
Melanie McFarland, USFS

Literature Cited

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